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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MAIS, MARK A	

ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/595,709	SIMONS ET AL.	
	Examiner	Art Unit	
	Mark A Mais	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-21 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102/103

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Anderson et al. (USP 6,597,691).

4. With regard to claims 1-6, Anderson et al. discloses a network device comprising: a plurality of ports for data ingress and egress **(Fig. 14, link ports 52, col. 7, lines 6-8)**; a plurality of mid-planes **(Figs. 12-14, four backplanes are in each backplane 60/260, col. 7, lines 10-12)**; a cross-connection subsystem connected to said ports and to at least one of said mid-planes **(Fig. 14, crossbar 55 is connected to link ports 52 and to backplane 60/260 via FPORT circuit 51)**; a switch fabric subsystem coupled to each of the plurality of mid-planes **(Figs. 12-14, crossbar packet switch 70/270 is connected to each of the four backplanes 60/260, col. 7, lines 12-14)**; wherein said cross-connection subsystem is directly connected to at least one of said mid-planes and functions a physical layer switch **(Fig. 14, crossbar 55 is connected directly to backplane 60/260 via FPORT circuit 51 and functions as a physical layer switch)**. An internal control processor card coupled to each of the plurality of mid-planes **(Figs. 12-14, processors 80/280, col. 7, lines 22-29)**. The switch fabric subsystem is a printed circuit boards **(col. 7, lines 59-60)**. Each of the disclosed backplanes is inherently a printed circuit board with a plurality of connectors. Alternatively, it would have been obvious for one or more backplanes to be a printed circuit board because a printed circuit board with a plurality of connectors is an obvious modification that was well-known in the art at the time of the invention **[see Tarver et al. (USP 4,918,572), col. 2, lines 37-44; and Roy et al. (USP 5,912,801), Abstract; as an example showing the state of the art at the time of the invention]**. Accordingly, it would have been obvious for one of ordinary skill in the art at the time of the invention to have fabricated a printed circuit board with a plurality of connectors for the single and multiple midplanes claimed in order to package a wide range of electronics equipment

within an electronic housing **[Tarver et al., col. 1, lines 12-22]** along with the necessary electrical connectors/connections.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 7-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Anderson et al. (USP 6,597,691).

7. With regard to claims 7-8, Anderson et al. discloses multiple forwarding subsystems **(Figs. 14 and 15, examiner interprets the Fport circuit 51 within each ASIC 50 as the forwarding**

subsystem (col. 8, lines 10-29) which performs forwarding of class 2/3 packets via output port, T-port (Fig. 14), and to the switch fabric 70/270 via output port, O-port (Fig. 14), col. 7, lines 39-44) connected to the multiple mid-planes **(Figs. 12-14, four ASICs 50 are connected to each of the four backplanes 60 and 260 via , col. 7, lines 10-12)** and coupled to the switch fabric through the multiple mid-planes **(Figs. 12-14, each of the ASICs 50 are connected to the crossbar switch 70 and 270 via one of the four backplanes 60/260, col. 7, lines 12-14)**.

8. With regard to claims 9-13, Anderson et al. discloses a the network device of claim 5, further comprising:

multiple cross-connection subsystems connected to multiple mid-planes **(Figs. 13-14, one crossbar packet switch 55 within each of four ASICs 50, col. 8 lines 24-29; connected to one of each of the four backplanes 60/260 via Fport circuit 51)**;

multiple port subsystems **(Figs. 12-13, each of the four backplanes 60/260 is connected to four ASIC 50s which, in turn, each have at least 4 link ports 52, col. 7, lines 6-8)** connected to the multiple mid-planes **(backplanes 60/260, col. 7, lines 8-9)** and coupled to the multiple cross-connection subsystems through the multiple mid-planes **(Figs. 12-14, each crossbar packet switch 55 within each of four ASICs 50 are connected to the crossbar switch 70/270 via one of the four backplanes 60/260, col. 7, lines 12-14)**; and

multiple forwarding subsystems **(Figs. 14 and 15, examiner interprets the Fport circuit 51 within each of the four ASICs 50 connected to each backplane 60/260 as the forwarding subsystem (col. 8, lines 10-29) which performs forwarding of class 2/3 packets via output port, T-port (Fig. 14), and to the switch fabric 70/270 via output port, O-port**

(Fig. 14), col. 7, lines 39-44) connected to the first mid-plane **(Figs. 12-14, four ASICs 50 are connected to each of the four backplanes 60/260, col. 7, lines 10-12)** and coupled to multiple cross-connection subsystems and the switch fabric subsystems through the first mid-plane **(Figs. 12-14, each crossbar packet switch 55 within ASIC 50 is connected to the crossbar switch 70/270 via one of each of the four backplanes 60/260, col. 7, lines 12-14)**.

9. With regard to claims 14-16, Anderson et al. discloses that each of the multiple cross-connection subsystems are coupled together through the multiple mid-planes **(Figs. 12-14, each of the crossbar packet switches 55 within each of the four ASICs 50 are connected to the crossbar packet switch 70/270 via each of the four backplanes 60/260.** ***see also*** **col. 10, lines 19-31, where additional cross-connections B0-B3 cross-connect each of the four backplanes)**.

10. With regard to claim 17, Anderson et al. discloses a network device, comprising:

a first mid-plane and a second mid-plane **(Figs. 12-14, four backplanes are in each backplane 60/260, col. 7, lines 10-12)**;

a switch fabric card coupled to the first mid-plane and the second mid-plane **(Figs. 12-14, crossbar packet switch 70/270 is connected to each of the four backplanes 60/260, col. 7, lines 12-14)**;

a first cross-connection card connected directly to the first mid-plane **(Figs. 13-14, one crossbar packet switch 55 within each of four ASICs 50, col. 8 lines 24-29; connected directly to one of each of the four backplanes 60/260 via Fport circuit 51)**;

a first port card **(Figs. 12-13, each of the four backplanes 60/260 is connected to four ASIC 50s which, in turn, each have at least 4 link ports 52, col. 7, lines 6-8)** connected to the first mid-plane **(backplanes 60/260, col. 7, lines 8-9)** and coupled to the first cross-connection card through the first mid-plane **(Figs. 12-14, each crossbar packet switch 55 within each of four ASICs 50 are connected to the crossbar switch 70/270 via one of the four backplanes 60/260, col. 7, lines 12-14)** said port card functioning as a physical layer switch **(crossbar 55 functions as a physical layer switch)**; and

a first forwarding card **(Figs. 14 and 15, examiner interprets the Fport circuit 51 within each ASIC 50 as the forwarding subsystem (col. 8, lines 10-29) which performs forwarding of class 2/3 packets via output port, T-port (Fig. 14), and to the switch fabric 70/270 via output port, O-port (Fig. 14), col. 7, lines 39-44)** connected to the first mid-plane **(Figs. 12-14, four ASICs 50 are connected to each of the four backplanes 60/260, col. 7, lines 10-12)** and coupled to the first cross-connection subsystem and the switch fabric subsystem through the first mid-plane **(Figs. 12-14, each crossbar packet switch 55 within ASIC 50 is connected to the crossbar switch 70/270 via one of each of the four backplanes 60/260 through FPORT circuit 51, col. 7, lines 12-14)**.

11. With regard to claim 18, Anderson et al. discloses:

a second cross-connection card **(Figs. 13-14, one crossbar packet switch 55 within each of four ASICs 50, col. 8 lines 24-29; connected to one of each of the four backplanes 60/260 via Fport circuit 51)** connected to the second mid-plane **(Figs. 12-14, four backplanes are in each backplane 60/260, col. 7, lines 10-12)**;

a second port card **(Figs. 12-13, each of the four backplanes 60/260 is connected to four ASIC 50s which, in turn, each have at least 4 link ports 52, col. 7, lines 6-8)** connected to the second mid-plane **(backplanes 60/260, col. 7, lines 8-9)** and coupled to the second cross-connection card through the second mid-plane **(Figs. 12-14, each crossbar packet switch 55 within each of four ASICs 50 are connected to the crossbar switch 70/270 via one of the four backplanes 60/260, col. 7, lines 12-14)**; and

a second forwarding card **(Figs. 14 and 15, examiner interprets the Fport circuit 51 within each ASIC 50 as the forwarding subsystem (col. 8, lines 10-29) which performs forwarding of class 2/3 packets via output port, T-port (Fig. 14), and to the switch fabric 70/270 via output port, O-port (Fig. 14), col. 7, lines 39-44)** connected to the second mid-plane **(Figs. 12-14, four ASICs 50 are connected to each of the four backplanes 60/260, col. 7, lines 10-12)** and coupled to the second cross-connection subsystem and the switch fabric subsystem through the second mid-plane **(Figs. 12-14, each crossbar packet switch 55 within ASIC 50 is connected to the crossbar switch 70/270 via one of each of the four backplanes 60/260, col. 7, lines 12-14)**.

12. With regard to claim 19, Anderson et al. discloses:

a third cross-connection card **(Figs. 13-14, one crossbar packet switch 55 within each of four ASICs 50, col. 8 lines 24-29; connected to one of each of the four backplanes 60/260 via Fport circuit 51)** connected to the first mid-plane **(Figs. 12-14, crossbar packet switch 70/270 is connected to each of the four backplanes 60/260, col. 7, lines 12-14)**;

a third port card **(Figs. 12-13, each of the four backplanes 60/260 is connected to four**

ASIC 50s which, in turn, each have at least 4 link ports 52, col. 7, lines 6-8) connected to the first mid-plane **(backplanes 60/260, col. 7, lines 8-9)** connected to the first mid-plane **(backplanes 60/260, col. 7, lines 8-9)** and coupled to the third cross-connection card through the first mid-plane **(Figs. 12-14, each crossbar packet switch 55 within each of four ASICs 50 are connected to the crossbar switch 70/270 via one of the four backplanes 60/260, col. 7, lines 12-14)**; and

a third forwarding card **(Figs. 14 and 15, examiner interprets the Fport circuit 51 within each ASIC 50 as the forwarding subsystem (col. 8, lines 10-29) which performs forwarding of class 2/3 packets via output port, T-port (Fig. 14), and to the switch fabric 70/270 via output port, O-port (Fig. 14), col. 7, lines 39-44)** connected to the first mid-plane **(Figs. 12-14, four ASICs 50 are connected to each of the four backplanes 60/260, col. 7, lines 10-12)** and coupled to the third cross-connection subsystem and the switch fabric subsystem through the first mid-plane **(Figs. 12-14, each crossbar packet switch 55 within ASIC 50 is connected to the crossbar switch 70/270 via one of each of the four backplanes 60/260, col. 7, lines 12-14)**.

13. With regard to claim 20, Anderson et al. discloses:

a fourth cross-connection card **(Figs. 13-14, one crossbar packet switch 55 within each of four ASICs 50, col. 8 lines 24-29; connected to one of each of the four backplanes 60/260 via Fport circuit 51)** connected to the second mid-plane **(Figs. 12-14, crossbar packet switch 70/270 is connected to each of the four backplanes 60/260, col. 7, lines 12-14)**;

a fourth port card **(Figs. 12-13, each of the four backplanes 60/260 is connected to**

four ASIC 50s which, in turn, each have at least 4 link ports 52, col. 7, lines 6-8) connected to the first mid-plane **(backplanes 60/260, col. 7, lines 8-9)** connected to the second mid-plane **(backplanes 60/260, col. 7, lines 8-9)** and coupled to the fourth cross-connection card through the second mid-plane**(Figs. 12-14, each crossbar packet switch 55 within each of four ASICs 50 are connected to the crossbar switch 70/270 via one of the four backplanes 60/260, col. 7, lines 12-14)**; and

a fourth forwarding card **(Figs. 14 and 15, examiner interprets the Fport circuit 51 within each ASIC 50 as the forwarding subsystem (col. 8, lines 10-29) which performs forwarding of class 2/3 packets via output port, T-port (Fig. 14), and to the switch fabric 70/270 via output port, O-port (Fig. 14), col. 7, lines 39-44)** connected to the second mid-plane **(Figs. 12-14, four ASICs 50 are connected to each of the four backplanes 60/260, col. 7, lines 10-12)** and coupled to the fourth cross-connection subsystem and the switch fabric subsystem through the second mid-plane **(Figs. 12-14, each crossbar packet switch 55 within ASIC 50 is connected to the crossbar switch 70/270 via one of each of the four backplanes 60/260, col. 7, lines 12-14)**.

14. With regard to claim 21, Anderson et al. discloses a network device, comprising:

a plurality of ports for data ingress and egress **(Fig. 14, link ports 52, col. 7, lines 6-8)**;

a plurality of mid-planes **(Figs. 12-14, four backplanes are in each backplane 60/260, col. 7, lines 10-12)** ;

a cross-connection subsystem connected to said ports and to at least one of said mid-

planes **(Fig. 14, crossbar 55 is connected to link ports 52 and to backplane 60/260 via FPORT circuit 51)**;

a plurality of forwarding cards **(Figs. 14 and 15, examiner interprets the plurality of Fport circuits 51 within each ASIC 50 as the forwarding subsystem (col. 8, lines 10-29) which performs forwarding of class 2/3 packets via output port, T-port (Fig. 14), and to the switch fabric 70/270 via output port, O-port (Fig. 14), col. 7, lines 39-44)**; and

a switch fabric subsystem coupled to each of the plurality of mid-planes **(Figs. 12-14, crossbar packet switch 70/270 is connected to each of the four backplanes 60/260, col. 7, lines 12-14)**.

Response to Arguments

15. Applicant's arguments filed January 14, 2005 have been fully considered but they are not persuasive.

16. With regard to claims 1, 17, and 21, Applicant argues that the claimed mid-planes are physical layer switches and that Anderson's connectionless backplanes 60/260 **(Figs. 12-14)** are router subsystems, which connect on a *frame-by-frame* basis **(Amendment dated January 14, 2005, Applicant's Remarks, page 8, lines 6-8; *see also* page 9, lines 16-17)**. Applicant's amended claims recite a "physical layer switch" which the examiner has interpreted as a packet switch. Apparently, Applicant is arguing that the claimed mid-planes are, functionally, packet switches, which switch packets, accordingly, on a *packet-by-packet* basis **(Amendment dated January 14, 2005, Applicant's Remarks, page 8, line 6, interpreted from Applicant's**

statement that the mid-planes are "in effect" physical layer switches). In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., mid-planes being packet (physical layer) switches) which connect on a *packet-by-packet* basis and not a *frame-by-frame* basis, are not recited in the rejected claims). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

17. Although the examiner has interpreted the physical layer switch as a packet switch, it is not entirely clear whether the claimed "physical layer switch" is a term of art (i.e., fibre channel, SONET, ATM, etc.) or a switch which, apparently, operates on the physical layer according to the Open Systems Interconnect (OSI) model. In fact, Applicant states that there is a difference between a packet switch and a physical layer switch, and attempts to sustain his argument by pointing to the disclosure of a physical layer switch and upper layer switches in Applicant's specification **(Amendment dated January 14, 2005, Applicant's Remarks, page 8, lines 14-15 and 19-21)**. However, Applicant's cited passages in the specification **(Applicant's specification, page 90)** fail to provide meaningful distinction between the claimed physical layer switch and Anderson's crossbar packet switch 55. Functionally, Applicant's specification states that the cross connection system switches packets between any port to any forwarding card **(Applicant's specification, page 90, lines 11-15)**. This fails to distinguish from Anderson's cross packet switch 55 switching packets from any link port 52 to any Fport circuit 51 **(Fig. 14)**.

18. With regard to claims 1, 17, and 21, Applicant states that the claimed cross connection subsystem is connected directly to the mid-plane **(Amendment dated January 14, 2005, Applicant's Remarks, page 8, lines 10-14; page 9, lines 12-14)**. Moreover, Applicant states Anderson's crossbar switch 55 is connected to the connectionless backplane 60/260 via multiple ports (e.g., Fport circuits 51, figs. 13 & 14), and, therefore, is not connected "directly" ***(See Id.)***. Applicant is attempting to distinguish the claimed invention from Anderson by implying that the claimed cross connection system is physically connected to the claimed mid-plane with no other port, connector, circuit, or wire, etc. between the two claimed features. However, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies, i.e., the negative recitation of the cross connection subsystem and the mid-plane physically connected with "nothing" in-between (interpreted by examiner from Applicant's discussion of the connection between the cross connection subsystem and the mid-plane), are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

19. With regard to claim 17, Applicant states, *arguendo*, that if the Fport circuit 51 of Anderson corresponds to the forwarding card, as claimed, that Anderson's Fport circuit 51 cannot be identified as both a physical layer switch and an upper layer switch **(Amendment dated January 14, 2005, Applicant's Remarks, page 9, lines 17-21)**. However, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a forwarding card which functionally

performs upper layer switching but does not perform physical layer switching) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

20. Moreover, Applicant states that Anderson's Fport circuits 51 are connected directly to connectionless crossbar 70/270 and not through connectionless backplane 60/260. The Fport circuit 51 is connected to connectionless backplane 60/260 **(as explained above in paragraph 8)**, and Fport circuit 51 is coupled to connectionless crossbar 70/270 via connectionless backplane 60/260 **[as explained in paragraph 8 above; *see also* fig. 13, for example, which shows that the ASIC 50 (which has Fport circuits 51) is connected to connection crossbar 270 through connectionless backplane 260]**.

Conclusion

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In

no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A Mais whose telephone number is (571) 272-3138. The examiner can normally be reached on 6:00-4:30.

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 7, 2005

WELLINGTON CHIN
SUPERVISORY PATENT EXAMINER